Attachment 3

Stormwater Flood Management Grant Proposal
Santa Barbara County Flood Control and Water Conservation District
Work Plan

Attachment 3 consists of the following items:

- ✓ **Work Plan.** Attachment 3 contains detailed information regarding the tasks that were and will be performed for the proposed project.

Introduction

Lower Mission Creek presents a serious flood risk to the City of Santa Barbara's residents. Over the past century, there have been no less that 20 devastating flood events. Hence, the City of Santa Barbara (City), the US Army Corps of Engineers (USACE), and the Santa Barbara County Flood Control and Water Conservation District (SBCFCWCD) have spent two decades studying and developing the *Lower Mission Creek Flood Control and Restoration Project*. The overall project would improve 1.3 miles along Mission Creek. The SBCFCWCD is submitting this grant application to fund the following 2 projects on Lower Mission Creek: Reach 1A Phase 2 (230 feet) and Reach 1B (420 feet), both of which will significantly increase the conveyance flood capacity of the channel from a 5-year event to a 20-year event and remove 11 parcels from the floodplain. The projects also provide restoration and habitat benefits which will increase water quality, improve riparian habitat, and facilitate the migration of steelhead and tidewater goby. Specifically, the projects will:

- Improve the conveyance capacity in Lower Mission Creek by 125%;
- Reduce erosion within the creek channel;
- Improve water quality;
- Enhance the natural streambed;
- Provide for fish passage;
- Improve riparian habitat.

Figure 3.1 – Overall Lower Mission Creek Project Reaches 1-7

Reach 1A Phase 2

Flood Protection

The Reach 1A Phase 2 project will restore 230 feet of the creek from Mason Street downstream to the pedestrian bride upstream of State Street. The channel will be widened to 55 feet at the top of bank and both banks will be protected with a vegetated vertical wall with architectural sandstone. The channel will have an average depth of 11 feet. Where the Mission Creek channel meets a pedestrian bridge, it will tapered to 51 feet at the top of bank and the bridge will be protected in place and remain. The invert slope of the channel will be streamlined and excavation of up to 1 foot of streambed will occur. Rip rap toe protection will be put in place along the channel walls.

The project will increase creek conveyance to 3,400 cfs, from a 5-year storm event to a 20-year storm event, which equates to a 125% improvement in flood protection.

Photo of Lower Mission Creek – Reach 1A Phase 2
Existing Situation Looking Upstream from Pedestrian Bridge

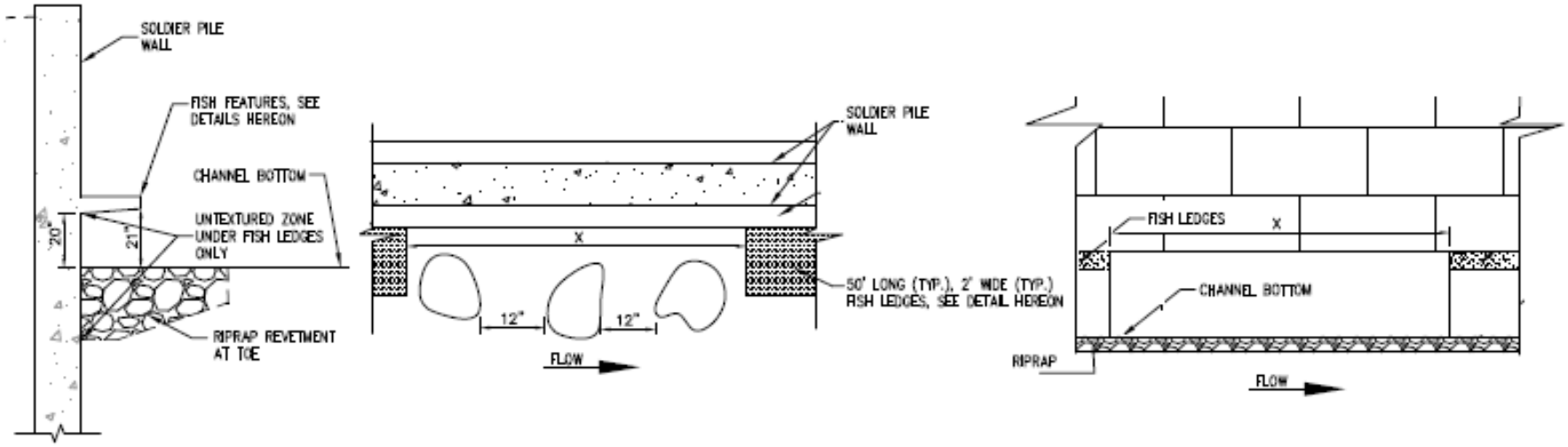
Habitat Restoration

The stabilization of the creek banks will be accompanied by restoration of the banks with native vegetation along the entire 230 foot stretch. In order to accommodate trees on the slopes, PVC pipes of varying sizes (up to a maximum of three feet in diameter) will be placed vertically in between the riprap side slope to allow planting of native trees. The trees to be planted in these pipes will be placed sparingly on the 2H: 1V slope. The riprap sideslope will be covered with topsoil and planted with ground cover and shrubs that will help develop the understory of the larger riparian canopy along the creek. The use of erosion control blankets will allow the vegetation to establish. Holes will be cut into the blanket, and plants will be installed through the holes. The plants chosen are in the drier spectrum of the riparian plant community to ensure their establishment given local climactic conditions. The plants themselves have attractive blooms, as in the case of sticky monkey flower, California rose and purple sage. Many are evergreen, such as coffeeberry, lemonadeberry and coyote bush.

A habitat expansion zone with native trees and vegetation will also be created downstream of Mason Street. Native trees, primarily western sycamores, cottonwoods, and coast live oak, will be planted in the habitat expansion zone. Native shrubs, such as seacliff buckwheat, deergrass and hummingbird sage, will also be planted.

The project will increase creek capacity to 3,400 cfs and facilitate fish passage for endangered steelhead and endangered tidewater goby. The City of Santa Barbara Creeks Division has conducted a number of studies and reports of local creeks and the restoration of steelhead populations. Mission Creek as the largest of creeks and Santa Barbara has consistently been identified as the most viable for successful restoration of steelhead, hence this project is critical in providing a local and regional benefit for an endangered population. Fish baffles and fish ledges will be provided along the channel walls directly downstream of the Mason Street Bridge. Figure 3.2 illustrates the design of the proposed fish ledges.

Figure 3.2 – Fish Ledges



Source: Lower Mission Creek Design Documentation Report, Tetra Tech, 2011

Water Quality

Water quality will be improved as a result of the project. Banks will be properly stabilized and vegetated, as opposed to the existing condition which is a patchwork of various types of bank stabilization measures that are failing. An even, vegetated riparian corridor and vegetated backs will enhance filtration, pH, and water temperature. Erosion and sedimentation will be dramatically decreased, hence water quality will increase.

Reach 1B

Flood Protection

The Reach 1B project provides for the rehabilitation and reconstruction of 420 feet of the creek from Mason Street to Yanonali Street. The channel will be widened to 55 feet at the top of bank and both banks will protected with vertical walls. The invert slope of the channel will be streamlined and up to 1 foot of the streambed will be excavated. Approximately 200 feet of the existing right channel wall will remain in place with rip rap toe protection along the existing and proposed channel walls.

The project will increase creek conveyance to 3,400cfs, from a 5-year storm event to a 20-year storm event, which equates to a 125% improvement in flood protection.

Photo of Lower Mission Creek - Reach 1B
Existing Situation Looking Downstream from Chapala Street Bridge

Habitat Restoration

The stabilization of the creek banks will be accompanied by a100-foot long habitat expansion zone with native trees and vegetation created along the east side of the creek just upstream of the Mason Street bridge. In order to accommodate trees on the slopes, PVC pipes of varying sizes (up to a maximum of three feet in diameter) will be placed vertically in between the riprap side slope to allow planting of native trees. The trees to be planted in these pipes will be placed sparingly on the 2H: 1V slope. The riprap sideslope will be covered with topsoil and planted with ground cover and shrubs that will help develop the understory of the larger riparian canopy along the creek. The use of erosion control blankets will allow the vegetation to establish. Holes will be cut into the blanket, and plants will be installed through the holes. The plants chosen are in the drier spectrum of the riparian plant community to ensure their establishment given local climactic conditions. The plants themselves have attractive blooms, as in the case of sticky monkey flower, California rose and purple sage. Many are evergreen, such as coffeeberry, lemonadeberry and coyote bush.

In order to facilitate fish passage for steelhead and tidewater goby, a fish baffle will be located directly downstream of the confluence of the existing Lower Mission Creek channel and the Oxbow Bypass. Further, a fish ledge will be located directly upstream of the fish baffle. Figure 3.2 (previous) illustrates the design of the proposed fish ledges.

Water Quality

Water quality will be improved as a result of the project. Banks will be properly stabilized and vegetated as opposed to the existing condition which is a patchwork of various types of bank stabilization measures that are failing. An even, vegetated riparian corridor and vegetated backs will enhance filtration, pH, and water temperature. Erosion and sedimentation will be dramatically decreased, hence water quality will increase.

Summary

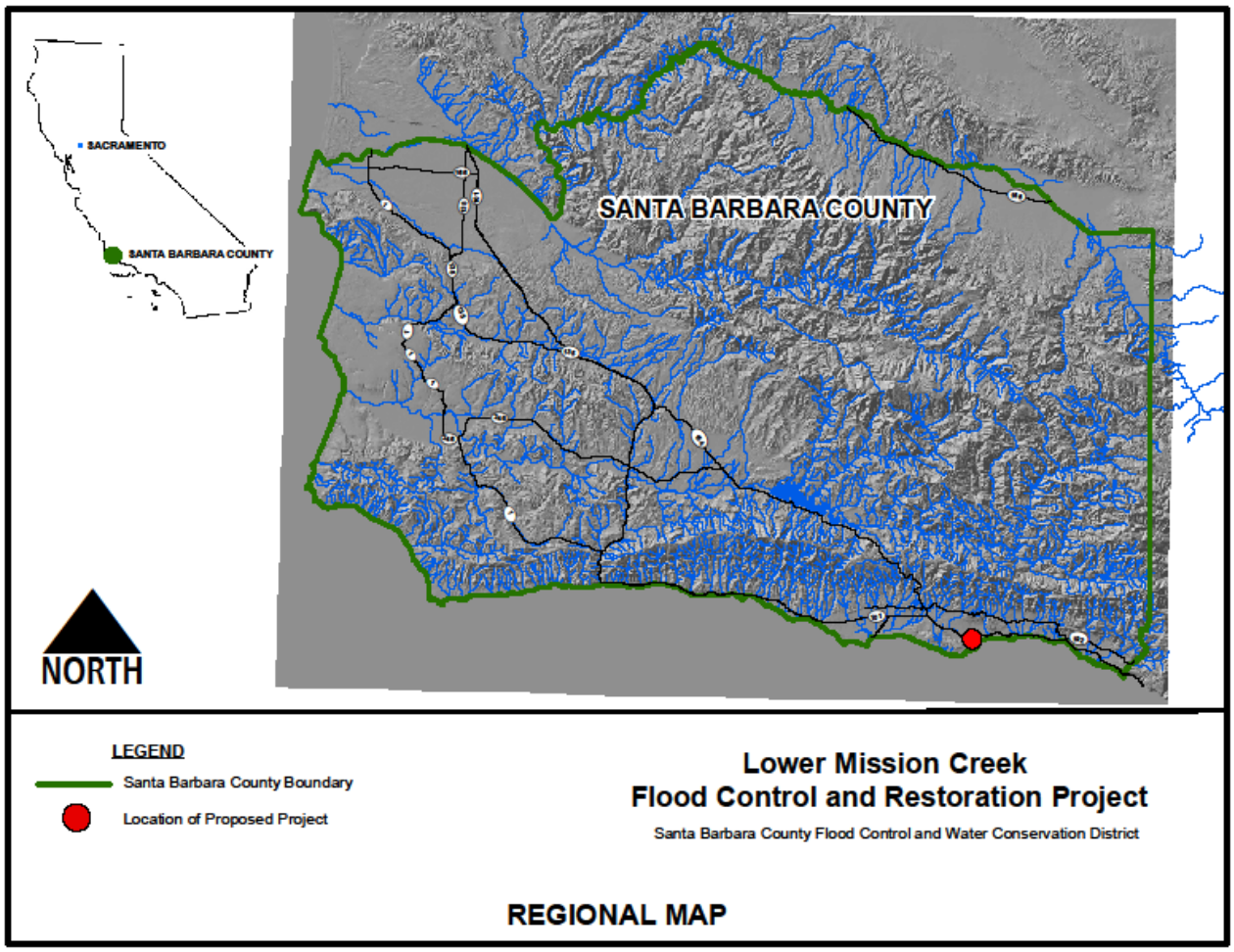
In summary, the *Lower Mission Creek Flood Control and Restoration Project*:

- improves flood flow conveyance from a 5-year event to a 20-year event or a 125% increase in conveyance capacity;
- reduces erosion and improves water quality;
- restores habitat and riparian vegetation;
- enhances natural streambed features, which promotes a healthier overall watershed; and
- provides for fish passage for steelhead and tidewater goby.

Regional Map

Figure 3.3 illustrates the location of the Lower Mission Creek Flood Control and Restoration Project. Figure 3.1 (previous) shows the location of Reach 1A Phase 2 and Reach 1B in the contact of the whole creek project.

Figure 3.3 Regional Map



Goals and Objectives

Goals and Objectives of the Proposal

The goal of the Reach 1A Phase 2 and Reach 1B projects is to protect the residents of the City of Santa Barbara from the serious and present flood risk posed by Lower Mission Creek. By increasing the channel capacity from conveyance of a 5-year to a 20-year event, these projects will provide a 125% increase in conveyance capacity which will vastly improve flood protection to thousands of residents and millions of dollars of valuable property adjacent to or in the vicinity of Lower Mission Creek. The project will also

enhance riparian habitat, provide comprehensive and consistent bank stabilization that supports creek functions with the added benefit of water quality, and increase fish passage.

The objectives that the projects are seeking to achieve include:

- *Flood Control*: Increase flood flow conveyance capacity.
- *Emergency Preparedness*: Improve public safety during storm events.
- *Ecosystem Restoration*: Protect, restore and expand habitat and ecosystems.
- *Water Quality*: Protect and improve surface water quality.

Figure 3.4 Lower Mission Creek Reaches 1A Phase 2 and Reach 1B Objectives

Project Components	Project Objectives	Project Actions
Reach 1A Phase 2 and Reach 1B	1. Increase flood flow conveyance capacity	1. Widens the creek to 55 feet to increase capacity from a 5-year to a 20-year storm event (125% improvement in conveyance capacity).
	2. Improve public safety during storm events	2. Removes 11 parcels from the floodplain
	3. Protect, restore and expand habitat and ecosystems	3. Restores 520 feet of creek bank with native vegetation and removes hundreds of sq. ft. of concrete and restoration of natural creek bottom. 4. Creates habitat expansion zones. 5. Increases overall creek capacity of 3,400 cfs to facilitate the migration of steelhead and tidewater goby. 6. Provides fish baffles and fish ledge along the reached to allow for fish passage.
	4. Protect and improve surface water quality	7. Stabilizes creek walls to reduce erosion and sedimentation.

Project Goals and Objectives as Related to IRWM Plan Objectives

The SBCFCWCD is a participant in the Santa Barbara County IRWM, a member of the Cooperating Partners (the regional water management group), and a member of the Cooperating Partners Steering Committee. The IRWM Plan sets regional priorities. There are several priorities listed in the IRWM Plan that demonstrate how the *Lower Mission Creek Flood Control and Restoration Project* Reach 1A, Phase 2 and Reach 1B relate to and supports the IRWM Plan. Those regional priorities include:

- Protect public safety by reducing the potential for flooding in strategic areas through infrastructure improvements such as levee reinforcement, channel modifications, floodplain restoration, and increasing reservoir storage capacity.
- Protect, restore, and enhance ecological processes in aquatic areas through water quality improvements; public education; restoration efforts, including removal of invasive species; and improved steelhead passage on strategic creeks.

The IWRM Plan also identifies water management strategies that are to be employed in projects that implement the IRWM Plan. The *Lower Mission Creek Flood Control and Restoration Project* will employ the following strategies:

- Environmental and habitat protection and improvement
- Flood management
- Water quality protection and improvement

The Lower Mission Creek project will be consistent with five of the Santa Barbara County IRWM Plan objectives. Figure 3.5 highlights the Santa Barbara County's IRWM Plan objectives as they relate to the Lower Mission Creek Project objectives.

Figure 3.5 Santa Barbara County IRWM Plan Objectives and Project Objectives

IRWM Plan Objective	Primary IRWM Plan Objectives Implemented by Project Objectives			
	Objective 1: Increase conveyance capacity	Objective 2: Improve public safety	Objective 3: Protect habitat and ecosystems	Objective 4: Protect water quality
 Protect, restore, and enhance natural processes and habitats			✓	
 Implement flood control measures	✓	✓		
Improve emergency preparedness		✓		
 Maintain and enhance water and wastewater infrastructure efficiency and reliability.	✓	✓		
 Improve the quality of urban runoff, storm water, and wastewater			✓	✓

Purpose and Need

Since 1900, residents and property owners adjacent to or in the vicinity of Lower Mission Creek have survived approximately 20 damaging floods. The City of Santa Barbara, which has a dense urban center and a condensed urban core, boasts numerous creeks flanked by institutional, residential and commercial development, many of which frequently flood. Mission Creek is the main creek in the City and as the City has developed over time, the pressure on its creeks, particularly lower Mission Creek, has become evident.

The environmental impacts of repeated flooding, combined with urbanization and uncoordinated individual bank stabilization measures, have exacerbated flooding and flooding damage on Lower Mission Creek. In order to prevent increased flooding devastation, it is necessary to holistically address historic problems and prepare for the future, which is likely to bring more severe events.

The SBCFCWCD, the City of Santa Barbara, and the USACE embarked on a two decade long effort of reconnaissance studies, feasibility studies (Exhibits 3-A), planning efforts, public outreach and an Environmental Impact Statement/Environmental Impact Report (EIS/EIR) (Exhibit 3-B) to contemplate and best address the flood control measures and restoration

measures that best benefit the Lower Mission Creek. According to the USACE, the primary problem affecting the lower Mission Creek is the threat of flooding to property, which affects the health, safety, and well-being of the residents of the City of Santa Barbara. As such, the proposed projects has been methodically thought out and developed to provide the maximum amount of flood protection feasible to take property owners out of harm's way.

The *Lower Mission Creek Flood Control and Restoration Project* will provide improved flood protection to the thousands of residents and prevent damage to millions of dollars of valuable property. Moreover, the projects will enhance and restore deteriorated riparian habitats that will enhance channel function as opposed to undermining it. Historically, bank stabilization efforts have degraded the natural characteristics of the creek bottom by unconfined placement of concrete material in numerous locations along the creek. Persistent non-native vegetation, especially giant reed, have invaded and overwhelmed the creek's environs because of the loss of the riparian community. Inhospitable patchy bank treatments and periodic maintenance is necessary, in part, to control bank erosion and prevent further encroachment of weedy species and subsequent loss of conveyance capacity. As such, the projects provide a balanced solution to flooding that employs a sound engineering solution with a sound environment solution.

Figure 3.6 Mission Creek – January 1995, Reach 1A, 2

Lower Mission Creek Flood Control and Restoration Project - Reach 1A Phase 2 and Reach 1B

The table below provides a description of the projects, the current status of both, identifies the implementing agency, the locations of the project and the project's relation to the State Plan of Flood Control.

Table 3.1 Project Specifics

Project	Description	
Lower Mission Creek Flood Control and Restoration Project – Reach 1A Phase 2	Abstract:	The Lower Mission Creek Flood Control and Restoration Project – Reach 1A Phase 2 provides 3,400 cfs of conveyance capacity, which represents a 125% increase over the existing condition. Furthermore, the project will provide significant riparian corridor and habitat restoration benefits which will increase water quality and provide for the passage of steelhead and tidewater goby.
	Project Specifics:	The Lower Mission Creek Flood Control and Restoration Project (Project) which entails the rehabilitation and reconstruction of Reach 1A, Phase 2 of the lower Mission Creek from Mason Street downstream (approximately 230 feet to the pedestrian bridge north of State Steer will: 1) improve flood flow conveyance from a 5-year event to a 20-year event or a 125% increase in conveyance capacity; 2) reduce erosion; 3) improve water quality; and 4) enhance natural streambed features, which promotes a healthier overall watershed and will provide habitat expansion zones. Reach 1A Phase 2 will increase overall creek capacity to 3,400 cfs, and facilitate the migration of steelhead and tidewater goby. Along this reach of the Project, the creek will be widened to 55 feet at the top of bank and both banks will be vertical with rip-rap protection. The channel will have an average depth of 11 feet. The invert slope of the channel will be streamlined and excavation of up to 1 foot of streambed will occur. Rip rap toe protection will be put in place along the channel walls.
	Status:	The project has completed 100% design and is ready to proceed with construction.
	Implementing Agencies:	The implementing agency is the Santa Barbara County Flood Control and Water Conservation District
	Location:	The City of Santa Barbara, the lower Mission Creek from Mason Street downstream (approximately 230 feet to the pedestrian bridge upstream of State Street.

Project	Description	
	State Plan of Flood Control (SPFC):	The project is located outside the Central Sacramento – San Joaquin Valley watersheds and therefore, is not part of the SPFC.
Lower Mission Creek Flood Control and Restoration Project – Reach 1B	Abstract:	The Lower Mission Creek Flood Control and Restoration Project (Project) provides for the rehabilitation and reconstruction of Reach 1B of the lower Mission Creek between Mason Street and Yanonali Street (420 feet). In specific, the benefits of the Project are: 1) improvement of flood flow conveyance from a 5-year event to a 20-year event 2) reduction of erosion; 3) expansion of aquatic habitat; and 4) improvement water quality. It also enhances the natural streambed features and provides an expanded riparian habitat area just upstream of the Mason Street Bridge. The project is part of the overall 1.3 mile Lower Mission Creek Flood Control Project, which will increase overall creek capacity to 3,400 cfs, and facilitate the migration of steelhead and tidewater goby.
	Project Specifics:	On this reach of the creek, the channel will be widened to 55 feet at the top of bank; both banks of the channel will be furnished with vertical walls and rip rap toe protection. The invert slope of the channel will be streamlined and excavation of up to 1 foot of streambed will occur and approximately 200 feet of the existing right channel wall will remain in place with rip rap toe protection along the existing and proposed channels walls. In order to facilitate fish passage, a fish baffle will be located directly downstream of the confluence of the existing Lower Mission Creek channel and the Oxbow Bypass. Further, a fish ledge will be located directly upstream of the fish baffle. Restoration of riparian properties along this stretch the channel includes a habitat expansion zone with native trees and vegetation.
	Status:	The project is at 60% design.
	Implementing Agencies:	Santa Barbara County Flood Control and Water Conservation District is the Implementing Agency
	Location:	The City of Santa Barbara, Lower Mission Creek, between Mason Street and Yanonali Street
	State Plan of Flood Control (SPFC):	The project is located outside the Central Sacramento – San Joaquin Valley watersheds and therefore, is not part of the SPFC

Project Map


LOWER MISSION CREEK
FLOOD CONTROL AND
RESTORATION PROJECT
Legend
LMC Reaches
Consultant
Dean Ryan
Tetra Tech
Construction Complete
HDR
Existing Open Channel
City Bridges
Name Consultant Construction
Cabrillo Blvd. Bengal 2012
Mason Street Bengal 2014
Chapala Street Drake-Haglin 2013
Gutierrez Street TBD 2015
Haley Street Bengal Complete
Cota Street Bengal 2014
Ortega Street MNS Complete
De La Guerra St. TBD 2015
Reach 7
Reach 6
Reach 5
Reach 4
Reach 2B2
Reach 2B1
Reach 2A
Reach 1B
Reach 1A2
Reach 1A1
Existing Open Channel
Canon Perdido St
Bath St
De La Vina St
Bradbury Ave
Fig Ave
Anacapa St
Santa Barbara St
Palm Ave
US Hwy 101
Garden St
Transfer Ave
De La Guerra St
Ortega St
Cota St
Brinkerhoff Ave
Chapala St
Gutierrez St
Gray Ave
Ruth Ave
Haley St
Parker Way
Hollis Ave
Bay Rd
Yanonali St
Kimberly Ave
Mason St
Helena Ave
Cottage Grove Ave
Los Aguajes Ave
Natoma Ave
Burton Cir
Montecito St
Castillo St
Wilson St
Cliff Dr
Cabrillo Blvd
N

Integrated Elements of Project

Since Santa Barbara County adopted its IRWM Plan in 2007 and was accepted as a region in the Regional Acceptance Process in 2009, the region has prioritized flood control as an IRWM Plan Regional Objective. The IWRM Plan identifies flooding along Lower Mission Creek as an IRWM Regional Issue and top priority project. These phases of the Lower Mission Creek provide synergy with an already completed portion of the overall *Lower Mission Creek Flood Control and Restoration Project*, Reach 1A Phase 1, which was completed with IRWM funds under Proposition 50. It also provides synergy with the San Jose Creek Capacity Improvement and Fish Passage Project in the City of Goleta that is funded under Proposition 84, Round 1. The San Jose Creek project will restore the creek channel and fortify it with pilings to accommodate water and debris associated with a 100-year storm event. A low flow fish passage channel will be installed on the east side of the flood control channel. The low flow channel will facilitate the movement of endangered steelhead trout to their historical spawning grounds. Finally, the project synergizes with the Las Vegas and San Pedro Creek projects, also seeking funding in Proposition 1E. All of these projects further advance the health and safety of residents on the south coast and mutually reinforce the emergency preparedness of communities. These projects are also linked to and are found in the Santa Barbara County Floodplain Management Task Force recommendations.

In addition, the proposed projects are consistent with the City of Santa Barbara's Local Coastal Plan (Adopted May 1991) Policy 6.8, which states that "the riparian resources, biological productivity, and water quality of the City's coastal zone creeks shall be maintained, preserved, enhanced, and, where feasible, restored." The proposed projects will preserve, enhance, and restore habitat for steelhead and tidewater goby on Mission Creek. Furthermore, the proposed projects are also consistent with the Water Quality Control Plan for the Central Coastal Basin adopted by the Regional Water Quality Control Board. The projects will facilitate the restoration of fish and wildlife habitat in a coastal watershed thereby furthering the following beneficial use objectives: cold fresh water habitat, wildlife habitat; rare, threatened or endangered species; migration of aquatic organisms; and spawning, reproduction, and/or early development. The projects achieve five of the region's nine IRWM Plan objectives including:

- Practice balanced natural resource stewardship
- Protect and improve water quality
- Improve flood management
- Improve emergency preparedness
- Maintain and enhance infrastructure efficiency and reliability

Completed Work

The history and amount of technical investigation conducted in support of the *Lower Mission Creek Flood Control and Restoration Project* is extensive and dates back to the late 1960's. The USACE first studied the flooding problems along Mission Creek in the late 1960's and an improvement plan was developed. In the early 1970's, the USACE conducted further studies in coordination with the City of Santa Barbara considering several alternatives to solve the flooding problems along the creek. In 1986, the USACE concluded a feasibility study and an alternative, referred to as the Lower Mission Creek Project, was authorized by Congress in the Water Resources Development Act of 1988. Later, the USACE published an initial Reconnaissance Study Report (November 1995), which determined that the investigation should proceed to a more detailed Feasibility Phase Study. The Feasibility Study was published in September 2000.

The County of Santa Barbara is in the process of obtaining easements and property for the construction of Reach 1A Phase 2 and Reach 1B. All easements will be obtained prior to the start of construction. The City of Santa Barbara will be purchasing APN 033-102-003 and APN 033-074-019, as well as easements across APN 033-074-005. Easements have been obtained on parcels APN 033-102-002 and APN 033-102-017. All easements and property acquisitions are required for widening the channel and constructing expanded riparian habitat areas.

Table 3-3 Land Purchased & Easements Completed or Will be Completed

Land Purchases/Easements	Date	Status
BEFORE September 1, 2013 (Reach 1B)		
APN 033-074-020 – vacant land (County, full take)		In progress
APN 033-074-021 – commercial/residential (County, easements)		In progress
APN 033-074-011 – residential (County, easements)		In progress
APN 033-074-010 – residential (County, easements)	11/30/2006	Complete
APN 033-074-009 – residential (County, easements)		In progress
APN 033-074-005 – residential (City, easements)		In progress
APN 033-074-019 – vacant land (City, full take)		In progress
AFTER September 1, 2013 (Reach 1A, Phase 2)		
033-102-003 – commercial (City, full take)		In progress
033-102-018 – commercial (County, easement)		In progress
033-102-002 – hotel (County, easement)	2010	Complete
033-102-017 – hotel (County, easement)	2004	Complete

Table 3.4 Summary of Permits That Have Been Obtained or Will Be Obtained by March 2013

Permits	Schedule	Status
ACOE Section 404 Nationwide Permit	March 2013	In progress
California Fish and Wildlife 1600 Streambed Alternation Permit	December 2009	Complete
U.S. Fish & Wildlife Service Biological Opinion	June 2001	Complete
California Coastal Commission Coastal Development Permit	September 2009	Complete
California Regional Water Quality Control Board Water Quality Certification	September 2010	Complete
NOAA Biological Opinion	August 2000	Complete

The project EIR/EIS was completed by the USACE in 2000, satisfying the CEQA and NEPA requirements. A Coastal Development Permit and Consistency Certification for the overall project was approved in 2006. The project EIS/EIR was completed conjunction with the aforementioned feasibility study.

Subsequently, the USACE contracted with Dean Ryan Corporation to develop plans, specifications, and the project cost estimate for Reach 1A Phase 2. The plans were completed in November 2010. The plans are for the construction of floodwalls, fish ledges, and an expanded riparian habitat area. SBCFCWCD contracted with TetraTech to develop plans, specification and a project cost estimate for Reach 1B. The plans are in the 60% design stage. The plans are for the construction of flood walls, boulder clusters, and an expanded riparian habitat area.

The Reach 1A Phase 2 project will adhere to the following technical criteria:

- Increase capacity of creek between the Pedestrian Bridge and Mason Street, from 1,500 cfs (5-year storm event) to 3,400 cfs (20 year storm event)

The Reach 1B project is currently in design and has obtained 60% design plans. The project will adhere to the following technical criteria:

- Increase capacity of creek between Mason Street and Yanonali Street, from 1,500 cfs (5-year storm event) to 3,400 cfs (20 year storm event)

Existing Data and Studies

There have been numerous reports and studies that have been completed for the *Lower Mission Creek Flood Control and Restoration Project*. These are:

- USACE Improvement Plan for Lower Mission Creek, 1960's;
- 1986 USACE Feasibility Study, "The Lower Mission Creek Project";
- USACE Initial Reconnaissance Study Report, November 1995;
- USACE Feasibility Phase Study. September, 2000.
- USACE EIR/EIR, 2000
- 100% Design Plans for Reach 1A, Phase 2 and 60% Design Plans for Reach 1B

Project Timing and Phasing

The Reach 1A Phase 2 and Reach 1B projects are part of the overall *Lower Mission Creek Flood Control and Restoration Project* which spans 1.3 miles and contains 7 reaches. The projects addressed in this application have been under design for over 10 years. All of the initial project work has been completed. As described above, an EIR/EIR was prepared for the project in 2000 after completion of an extensive Feasibility Phase Study (2000). All permits for the project, with the exception of the USACE Clean Water Act Section 404 permit which is anticipated to be received in March 2013, where received by 2010.

Design for Reach 1A, Phase 2 is completed (100% in 2000) and is scheduled to initiate construction contracting in February 2014. The project will commence construction in April 2014 and construction is anticipated to last 261 days. Construction will be completed at the end March 2015.

Design for Reach 1B will be completed by March 2013. Presently, 60% design plans have been developed. Subsequently this Reach is scheduled to initiate the construction contracting process in April 2013 and commence construction in June 2013. Construction is anticipated to last 195 days and be completed in at the end of the month of February, 2014.

Proposed Work

The following sections outline the tasks necessary for implementation of the *Lower Project Mission Creek Flood Control and Restoration Project* Reach 1A Phase 2 and Reach 1B. The work items are divided into each of the six primary budget categories and associated tasks as shown on Table 4, page 29, of the Proposition 1E, Round 2 Stormwater Flood Management Grant PSP. Work is divided into tasks completed before the grant award date (before August 15, 2013) and after the grant award date (after August 15, 2013).

(a) Direct Project Administration Costs

Task 1: Project Administration

The project administration tasks include administration of grants and construction contracts, reviewing plans and specifications, and other administrative activities required to complete the construction phase. This project will be coordinated by a designated project manager and project coordinator employed by the District to manage both components of the Project. The project manager will be responsible for day-to-day activities of the project, organizing project meetings, all reporting to the grant agency, coordination between parties involved in project implementation, budget tracking, and compliance with the IRWM Plan. Additionally, the project manager and coordinator will coordinate with various agencies regarding permit, environmental, design and construction issues.

Task 1: Project Administration				
Activity or Deliverable	**Schedule**	**Status**	**Completion of Task**	
			Before Aug 2013	**After Aug 2013**
Management of Project including meetings, review of project progress	Ongoing	Ongoing	X	X
Review of invoices and backup documentation for submittal State	Quarterly after contract execution	Not yet begun		X

Task 2: Labor Compliance Program

The County of Santa Barbara will contract with a Third Party Labor Compliance Program approved by the Department of Industrial Relations to oversee all aspects of Contractor compliance with the Code of Federal Regulations. Labor Compliance will include, but not be limited to:

- Ensure that all project legal notices contain the proper LCP notifications to bidders; and statement of payment of prevailing wage requirements as stated in Labor Code Section 1771.8 for entities receiving funds from DWR's Stormwater Flood Management (SWFM) Grant, funded by Proposition 1E.
- Compliance with the LCP, including payment of prevailing wages, identification of labor classifications, and proper completion and submission of forms and notices.
- Collect and record the receipt of weekly Certified Payroll Records Pursuant to Labor Code Sections 1771.5(4), 1776, and California Code of Regulations 16401, 16402, 16403 as well as any applicable Federal statutes.
- Conduct random audits of Certified Payroll Records.
- Conduct periodic and routine site visits to physically monitor the Project. Note the number of workers on the site and interview a sufficient number to ensure that they are receiving the proper prevailing wage rate for the duties performed.
- Investigate all allegations of failure to pay prevailing wage rates and/or worker complaints per project.
- Attend and participate in on-site meetings, or other meetings, as requested by Santa Barbara County Flood Control District.
- Engage in all such duties required for those entities receiving funds from the DWR's Stormwater Flood Management (SWFM) Grant, funded by Proposition 1E.
- Assist in litigation related to LCP issues brought by third parties.
- Provide direction and guidance to bidders in their queries regarding the project.

Task 2: Labor Compliance Program				
Activity or Deliverable	**Schedule**	**Status**	**Completion of Task**	
			Before Aug 2013	**After Aug 2013**
County of SB Contract Admin, LCP ID 009	Ongoing	Ongoing	(not relevant to proposed project)	X

Task 3: Reporting

The District will assign a Project Manager to develop and submit the State-required, quarterly, annual and final reports. The progress reports will describe activities undertaken and accomplishments of each task when milestones are achieved and when any problems are encountered in the performance of the work. A final project report will be prepared per grant requirements and submitted to the DWR once the project is completed.

The reports will include final design plans and specifications, before and after site photographs, project status updates, copies of contracts with third-party consultants (LCP, construction management and inspection, construction surveyor and geotechnical materials testing), invoices for completed construction services, updates to environmental documentation, and post-construction regulatory agency reports.

Task 3: Reporting				
Activity or Deliverable	**Schedule**	**Status**	**Completion of Task**	
			Before Aug 2013	**After Aug 2013**
Submit Quarterly Progress Report	Quarterly after contract execution	Not yet begun		X
Submit Annual Reports	Yearly during duration of project	Not yet begun		X
Submit Final Report	After completion of project	Not yet begun		X

B. Land Purchase/ Easement

The County of Santa Barbara is in the process of obtaining easements and property for the construction of Reach 1A Phase 2 and Reach 1B. All easements will be obtained prior to the start of construction. The City of Santa Barbara will be purchasing APN 033-102-003, and APN 033-074-019 as well as easements across APN 033-074-005 prior to start of construction. All easements and property acquisitions are required for widening the channel and constructing expanded riparian habitat areas.

Land Purchases/Easements	Date	Status
BEFORE September 1, 2013 (Reach 1B)		
APN 033-074-020 – vacant land (County, full take)		In progress
APN 033-074-021 – commercial/residential (County, easements)		In progress
APN 033-074-011 – residential (County, easements)		In progress
APN 033-074-010 – residential (County, easements)	11/30/2006	Complete
APN 033-074-009 – residential (County, easements)		In progress
APN 033-074-005 – residential (City, easements)		In progress
APN 033-074-019 – vacant land (City, full take)		In progress
AFTER September 1, 2013 (Reach 1A, Phase 2)		
033-102-003 – commercial (City, full take)		In progress
033-102-018 – commercial (County, easement)		In progress
033-102-002 – hotel (County, easement)	2010	Complete
033-102-017 – hotel (County, easement)	2004	Complete

C. Planning / Design / Engineering / Environmental Documentation

Over the past 20 years, the SBCFCWCD, the City of Santa Barbara, and the USACE have completed reconnaissance studies, feasibility studies, design studies, environmental documentation, public outreach and engineering designs. Improvements to these reaches will have localized impacts on flooding, water quality, habitat restoration and fish passages. Each phase of the overall 7-phased project has been designed to be standalone project.

Task 4: Assessment and Evaluation				
Activity or Deliverable	**Schedule**	**Status**	**Completion of Task**	
			Before Aug 2013	**After Aug 2013**
Hydrology and Water Quality Study - Complete	June – October 2012	Completed	X	

Task 5: Project Design

The USACE contracted with Dean Ryan Corporation to develop plans, specifications, and the project cost estimate for Reach 1A Phase 2. The plans were completed in November 2010. The plans are for the construction of floodwalls, fish ledges, and an expanded riparian habitat area. The SBCFCWCD contracted with TetraTech to develop plans, specification and a project cost estimate for Reach 1B. The plans are in the 60% design stage. The plans are for the construction of flood walls, boulder clusters, and an expanded riparian habitat area.

The Reach 1A Phase 2 project will generally adhere to the following technical criteria:

- Increase capacity of creek between the Pedestrian Bridge and Mason Street, from 1,500 cfs (5-year storm event) to 3,400 cfs (25 year storm event)
- Widening of channel to increase fish habitat by 5,600 square feet.
- Create environmental riparian habitat area of 2,000 square feet.
- The Reach 1B project is currently in design and has obtained 60% design plans. The project will adhere to the following technical criteria:Increase capacity of creek between Mason Street and Yanonali Street, from 1,500 cfs (5-year storm event) to 3,400 cfs (25 year storm event)
- Widening of channel to increase fish habitat by 8,400 square feet.
- Create environmental riparian habitat area of 3,900 square feet.

Task 5: Project Design				
Activity or Deliverable	**Schedule**	**Status**	**Completion of Task**	
			Before Aug 2013	**After Aug 2013**
Reach 1A, Phase 2 – 100% Design	November 2010	Complete	X	
Reach 1B – 60% Design	December 2012	Complete	X	
Reach 1B – 90% Design	February 2013	In progress	X	
Reach 1B – 100% Design	March 2013	In progress	X	

Task 6: Environmental Documentation

The project EIR/EIS has been completed, satisfying the CEQA and NEPA requirements (Exhibit 3-B), and a Coastal Development Permit and Consistency Certification for the overall project was approved in 2006. The project EIS/EIR was completed by the USACE in September 2000 in conjunction with a feasibility study after determining that the *Lower*

Mission Creek Flood Control and Restoration Project required further study. As a result, mitigation measures associated with biology, cultural resources, traffic, water quality, air quality and noise impacts were incorporated into the project as conditions of approval, since the EIS/EIR concluded that significant unavoidable effects on the environment would result from the project. Since the preparation of the certified Final EIS/EIR, the 2007 Clean Air Plan was adopted. The proposed project would be consistent with the 2007 Clean Air Plan because the project is consistent with the City's General Plan that was used to estimate future emissions. No change has occurred in the environmental regulations that were in effect when the Lower Mission Creek Final EIS/EIR was certified that would result in a new significant impact. Because these activities are completed, this application does not include budget for Task 6.

Task 6: Environmental Documentation				
Activity or Deliverable	**Schedule**	**Status**	**Completion of Task**	
			Before Aug 2013	**After Aug 2013**
Final Lower Mission Creek EIS/EIR	September, 2000	Completed	X	
Coastal Development Permit and Consistency Certification	December, 2009	Completed	X	

Task 7: Permitting

All the required and necessary permits for the project, with the exception of the USACE Clean Water Act Section 404 permit which will be received by March 2013, have been obtained.

Task 7: Permitting				
Activity or Deliverable	**Schedule**	**Status**	**Completion of Task**	
			Before Aug 2013	**After Aug 2013**
USACE Clean Water Act Section 404 Nationwide Permit	March 2013	In progress	X	
California Fish and Wildlife 1600 Streambed Alternation Permit	December 2009	Complete	X	
U.S. Fish & Wildlife Service Biological Opinion	June 2001	Complete	X	
California Coastal Commission Coastal Development Permit	September 2009	Complete	X	
California Regional Water Quality Control Board Water Quality Certification	September 2010	Complete	X	
NOAA Biological Opinion	August 2000	Complete	X	

D. Construction / Implementation

Task 8: Construction Contracting

The final plans and specifications will be published and the project will be put out to bid prior to construction commencing.

Task 8: Construction Contracting				
Activity or Deliverable	**Schedule**	**Status**	**Completion of Task**	
			Before Aug 2013	**After Aug 2013**
Preparation of Bid Packages	April 2013	Not yet begun		X
Notice Request for Bids	April 2013	Not yet begun		*X*
Notice to Proceed	May 2013	Not yet begun		X

Task 9: Construction

The items below provide an overall description of the construction task and sub-tasks.

Subtask 9.1 Mobilizations and Site Preparation:
The Mobilization and Site Preparation subtask will include the following activities:

- Contractor's efforts to organize and order equipment and materials and to deliver equipment and material to the job site,
- Notification to adjacent private and commercial property owners,
- Installation of a project trailer and temporary electricity for construction management,
- Safety and biological resources meeting, and
- Installation of Stormwater Pollution Prevention Program best management practices.

Subtask 9.2 Project Construction:
Project construction will include the following activities:

- Demolition of existing utilities and structures such as piles, building and patios,
- Excavation, hauling, grading and backfill,
- Tree removal and clearing and grubbing,
- Dust control, traffic control and detours, erecting temporary construction fencing,
- Traffic Control,
- Construction of temporary cofferdam,
- Dewatering,
- Constructing concrete channel walls,
- Regrading creek bed with rip rap, boulders and fill materials,
- Existing storm drain modifications,
- Installation of fish ledges,
- Fencing, and
- Landscaping.

Subtask 9.3 Performance Testing and Demobilization:
Performance testing will include geotechnical materials testing of:

- Concrete (test cylinders),

- Reinforcement, and
- Backfill for compaction requirements.

Demobilization will include:

- Removal of equipment and excess materials from job site,
- Cleaning up construction area,
- Removal of BMPs, and
- Finishing up remaining punch list items.

Task 9: Construction				
Activity or Deliverable	**Schedule**	**Status**	**Completion of Task**	
			Before Aug 2013	**After Aug 2013**
Mobilization and Site Preparation	April 2013	Not yet begun		X
Project Construction	May 2013	Not yet begun		X
Performance Testing and Demobilization	February 2015	Not yet begun		X

(e) Environmental Compliance/Mitigation/Enhancement

Task 10: Environmental Compliance/Mitigation/Enhancement

All environmental mitigation necessary for the project has been addressed by the completed EIS/EIR and implemented by the responsible agency. No additional mitigation is necessary as part of this work plan.

(f) Construction Administration

Task 11: Construction Administration (Management)

Construction administration will be performed by a SBCFCWCD-contracted construction management firm to perform review of contractor submittals, management of construction schedules, and generation of required weekly status reports. Construction management will also perform construction inspection and report back to the SBCFCWCD.

Task 11: Construction Administration				
Constructing Contracting Activity or Deliverables	**Schedule**	**Status**	**Completion**	
			Before Aug 2013	**After Aug 2013**
Quarterly Construction Reports (includes contractors monthly progress reports and invoices)	April 2013 through March 2015	Not yet begun		X
Final Construction Report	April 2015	Not yet begun		X

Other Costs

There are no additional activities and cost.

Discussion of Standards

The following standards will be used for the implementation of the Project:

- Construction Design Standards include the latest editions of the California Department of Transportation Standard Specifications and Standard Plans, American Public Works Association Standard Specifications for Public Works Construction